(Tab A to IAC-D-84)

EIC-D-71(a)
18 June 1954

Control 49571

ECONOMIC INTELLIGENCE COMMITTEE

MEMORANDUM FOR: The Intelligence Advisory Committee

SUBJECT : JIC 635/1, "Capabilities of the Chinese Communist Railroads, Roads and Inland Waterways"

1. The IAC, at its meeting of 26 May 1953 (paragraph 5, IAC-M-108), instructed the EIC to review JIC 635/1, "Capabilities of the Chinese Communist Railroads, Roads and Inland Waterways". JIC 635/1 was completed on 3 August and was transmitted to the EIC for review on 25 August 1953.

2. In January 1954, after lengthy discussions of the points of difference, the EIC Subcommittee on Transportation completed its review of the JIC paper and restudy of the subject matter of the paper. The conclusions of the Transportation Subcommittee, approved by the EIC representatives of the IAC agencies, indicated general agreement with the JIC capability figures on roads and inland waterways. There was, however, disagreement over the JIC calculations of railroad capability, which represents the largest part of overland transport availability. In general, the Army, Navy, and Air representatives supported the JIC conclusions. State and CIA, on the other hand, estimated that railroad capability was more than double the JIC figures.

3. The several estimates of capability of the Chinese Communist railroads in 1952 can be summarized as follows:

| | Net Metric Tons Originated |
|---|---|
| JIC 635/1 | 45 million (50 million short tons) |
| EIC | |
| Army, Navy, Air | 45-61 million |
| CIA, State | 131-136 million |

A more complete treatment of these and other relevant estimates is given in the attached Annex.

4. While there were differences between the two ranges of estimates on three principal elements involved in the final calculations of capability (a. operable freight car inventory, b. average turnaround time, and c. average net load per loaded car), the differences on one of these elements account primarily for the sizeable divergences in the final calculations of capability that resulted. These crucial differences were on average turnaround time. The estimates on this element are summarized below:

| | Average Turnaround Time (in days) |
|---|---|
| Army, Navy, Air | 5.2 to 9.2 |
| State, CIA | 2.9 to 3.4 |

5. Shortly before this study was completed, the Assistant Director for National Estimates, CIA requested a statement of the main points of agreement and disagreement within the EIC, for consideration in connection with NIE-13-54 (Communist China's Power Potential Through 1957). ONE, also, was unable in the time available to them to reconcile these differences, and, although the IAC agreed on certain descriptive language, no figures on Communist Chinese railroad capability were included in the recently published NIE.

6. The EIC recognizes the need for an agreed estimate of capability of the Chinese Communist railroads, and considers that if certain items of intelligence were available, particularly on the major point of difference noted above, progress toward agreement would be facilitated. Further interagency study of this subject will be undertaken as a matter of priority as soon as sufficient information is available to clarify the facts underlying the major points of difference. Recognizing that greater priority should be given to the collection of this information, the EIC has initiated action (collectively and through individual member agencies) to urge an intensified collection effort.

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OTTO E. GUTHE
Chairman
Economic Intelligence Committee

Attachment: Annex

## ANNEX

### Comment on Calculations Involved in Determining Capability of Chinese Communist Railroads in 1952

The capability of the Chinese Communist Railroads in 1952 - as measured in terms of tons of freight originated - was calculated by the several agencies as follows:

| | (In Millions of Metric Tons) |
|---|---|
| Army | 60.7 |
| Navy | 45 to 60 |
| Air Force | 45.1 to 60.5 |
| State | 131 |
| CIA | 136 |

These calculations can be derived through the use of the following formula:

$$\text{Tons Originated} = \text{Operable Freight Car Park} \times \text{Average Load per Loaded car} \times \frac{365}{\text{Turnaround Time}}.$$

The main factor affecting the difference in these calculations is the estimate of turnaround time, that is, the average elapsed time from one loading of a car to its next loading. Average car turnaround time is calculated by the following formula:

$$\text{Turnaround Time} = \frac{\text{Average Length of Loaded Car Haul} + \text{Average Length of Empty Car Movement}}{\text{Average Speed of Car Movement Between Division Stops}} + \text{Time at Division Stops} + \text{Terminal Time}$$

The several agencies estimated the variables in the above formula, as follows:

| | CIA | State | Army | Navy | Air |
|---|---|---|---|---|---|
| 1. Average Length of Loaded Car Haul(km) | 454 | 454 | 640 | | 500 |
| 2. Average Length of Empty Car Movement (km) | 150 | 234.2 | 274 | | 214 |
| 3. Average Total Car Movement in One Turnaround Period (km) (1 + 2) | 604 | 688.2 | 914 | 600 | 714 |
| 4. Average Speed Between Division Stops (kph) | 20 | 25.2 | 20 | | 20 |
| 5. Average "Rolling" Time From Origin to Destination (hrs) (3 ÷ 4) | 30 | 27.3 | 45.7 | | 35.7 |
| 6. Average Division Stop Time (hrs) | 20.3 | 42.3 | 30.5 | | 64.3 |
| 7. Average Terminal Time (hrs) | 30 | | 50 | | 57.2 |
| 8. Average Turnaround Time (hrs) (5 + 6 + 7) | 80.3 | 69.6 | 126.2 | 144 | 157.2 |
| 9. Average Turnaround Time (days) | 3.4 | 2.9 | 5.2 | 6.0 | 6.6* |

Of these elements, the differences on terminal time and time spent at division stops account for the greater portion of the differences in total turnaround time.

* This figure represents what the Air Force considers the most probable estimate of average turnaround time. They also state that on the basis of railroad operating experience, average turnaround time may be as high as 9.2 days.